WHAT IS CLAIMED IS:

1. An *in vivo* method of repairing a tissue, the method comprising:

(a) providing cells capable of proliferating and differentiating *in vivo* to form said tissue or a portion thereof, said cells having a purified extracellular matrix degrading enzyme externally adhered thereto, thereby increasing the natural amount of said extracellular matrix degrading enzyme externally adhered to said cells, so as to enhance extravasation, implantation, transplantation, invasion and/or migration of said cells in vivo; and

(b) administering said cells *in vivo*.

2. The method of claim 1, wherein said cells are genetically modified to express and extracellularly present or secrete said extracellular matrix degrading enzyme.

3. The method of claim 1, wherein said extracellular matrix degrading enzyme is a natural or recombinant extracellular matrix degrading enzyme externally added to said cells.

4. The method of claim 1, wherein said cells are selected from the group consisting of marrow hematopoietic or stromal stem cells, keratinocytes, fibroblasts, blastocysts, neuroblasts and astrocytes.

5. The method of claim 1, wherein the tissue is selected from the group consisting of bone, muscle, skin and nerve.

6. The method of claim 1, wherein said extracellular matrix degrading enzyme is selected from the group consisting of a collagenase, a glycosaminoglycans degrading enzyme and an elastase.

7. The method of claim 6, wherein said glycosaminoglycans degrading enzyme is selected from the group consisting of a heparanase, a connective tissue activating peptide, a heparinase, a glucoronidase, a heparitinase, a hyluronidase, a sulfatase and a chondroitinase.

8. An *in vivo* method of implanting a tissue or a portion thereof, the method comprising:

(a) externally adhering to the tissue or the portion thereof a purified, natural or recombinant, extracellular matrix degrading enzyme, thereby increasing the natural amount of said extracellular matrix degrading enzyme externally adhered to said tissue, so as to enhance implantation or transplantation thereof;

(b) implanting said tissue or the portion thereof *in vivo*.

9. The method of claim 8, wherein the tissue or the portion thereof is selected from the group consisting of embryo, skin flaps and bone scraps.

10. The method of claim 8, wherein said extracellular matrix degrading enzyme is selected from the group consisting of a collagenase, a glycosaminoglycans degrading enzyme and an elastase.

11. The method of claim 10, wherein said glycosaminoglycans degrading enzyme is selected from the group consisting of a heparanase, a connective tissue activating peptide, a heparinase, a glucoronidase, a heparitinase, a hyluronidase, a sulfatase and a chondroitinase.

12. An *in vivo* method of cell transplantation, the method comprising:

(a) providing transplantable cells, said cells having a purified extracellular matrix degrading enzyme externally adhered thereto, thereby increasing the natural amount of said extracellular matrix degrading enzyme externally adhered to said cells, so as to enhance extravasation, implantation, transplantation, invasion and/or migration of said cells in vivo; and

(b) administering said cells *in vivo*.

13. The method of claim 12, wherein said cells are genetically modified to express and extracellularly present or secrete said extracellular matrix degrading enzyme.

14. The method of claim 12, wherein said extracellular matrix degrading enzyme is a purified, natural or recombinant extracellular matrix degrading enzyme externally added to said cells.

15. The method of claim 12, wherein said cells are selected from the group consisting of marrow hematopoietic or stromal stem cells, keratinocytes, blastocysts, neuroblasts, astrocytes and fibroblasts.

16. The method of claim 12, wherein said extracellular matrix degrading enzyme is selected from the group consisting of a collagenase, a glycosaminoglycans degrading enzyme and an elastase.

17. The method of claim 16, wherein said glycosaminoglycans degrading enzyme is selected from the group consisting of a heparanase, a connective tissue activating peptide, a heparinase, a glucoronidase, a heparitinase, a hyluronidase, a sulfatase and a chondroitinase.

18. A somatic gene therapy method of *in vivo* introduction of genetically modified cells expressing a therapeutic protein, the method comprising:

(a) providing the genetically modified cells expressing the therapeutic protein having a purified extracellular matrix degrading enzyme externally adhered thereto, thereby increasing the natural amount of said extracellular matrix degrading enzyme externally adhered to said cells, so as to enhance extravasation, implantation, transplantation, invasion and/or migration of said cells in vivo; and

(b) administering said cells *in vivo*.

19. The method of claim 18, wherein said cells are further genetically modified to express and extracellularly present or secrete said extracellular matrix degrading enzyme.

20. The method of claim 18, wherein said extracellular matrix degrading enzyme is a purified, natural or recombinant extracellular matrix degrading enzyme externally added to said cells.

21. The method of claim 18, wherein said cells are selected from the group consisting of marrow hematopoietic or stromal stem cells, keratinocytes, blastocysts, neuroblasts, astrocytes and fibroblasts.

22. The method of claim 18, wherein said extracellular matrix degrading enzyme is selected from the group consisting of a collagenase, a glycosaminoglycans degrading enzyme and an elastase.

23. The method of claim 22, wherein said glycosaminoglycans degrading enzyme is selected from the group consisting of a heparanase, a connective tissue activating peptide, a heparinase, a glucoronidase, a heparitinase, a hyluronidase, a sulfatase and a chondroitinase.

24. The method of claim 18, wherein said therapeutic protein is capable of relieving symptoms of a genetic disease.

25. The method of claim 24, wherein said genetic disease is selected from the group consisting of mucopolysaccharidoses, cystic fibrosis, Parkinsohn's disease ,Gaucher's syndrome and osteogenesis imperfecta.

26. A method of delivering a biological material across a biological blood barrier, the method comprising

(a) externally adhering to the biological material a purified, natural or recombinant, extracellular matrix degrading enzyme, thereby increasing the natural amount of said extracellular matrix degrading enzyme externally adhered to said material, so as to enhance extravasation, implantation, transplantation, invasion and/or migration of said material in vivo; and

(b) administering the biological material *in vivo*.

27. The method of claim 26, wherein said biological material includes cells.

28. The method of claim 27, wherein said cells are selected from the group consisting of marrow hematopoietic or stromal stem cells, keratinocytes, neuroblasts, astrocytes, fibroblasts and genetically modified cells.

29. The method of claim 26, wherein said biological material is a drug delivery system.

30. The method of claim 26, wherein said extracellular matrix degrading enzyme is selected from the group consisting of a collagenase, a glycosaminoglycans degrading enzyme and an elastase.

31. The method of claim 30, wherein said glycosaminoglycans degrading enzyme is selected from the group consisting of a heparanase, a connective tissue activating peptide, a heparinase, a glucoronidase, a heparitinase, a hyluronidase, a sulfatase and a chondroitinase.

32. The method of claim 26, wherein the biological blood barrier is selected from the group consisting of blood-brain-barrier, blood-milk-barrier and maternal blood-placenta-embryo barrier.

33. A method of delivering cells across a biological blood barrier, the method comprising:

(a) genetically modifying the cells to express and extracellularly present or secrete a purified extracellular matrix degrading enzyme, thereby increasing the natural amount of said extracellular matrix degrading enzyme externally adhered to said cells, so as to enhance extravasation, implantation, transplantation, invasion and/or migration of said cells in vivo; and

(b) administering the cells *in vivo*.

34. The method of claim 33, wherein said cells are further genetically modified to express a therapeutic protein.

35. The method of claim 33, wherein said cells are selected from the group consisting of marrow hematopoietic or stromal stem cells, keratinocytes, neuroblasts, astrocytes, fibroblasts and cells genetically modified to express a therapeutic protein.

36. The method of claim 33, wherein said extracellular matrix degrading enzyme is selected from the group consisting of a collagenase, a glycosaminoglycans degrading enzyme and an elastase.

37. The method of claim 36, wherein said glycosaminoglycans degrading enzyme is selected from the group consisting of a heparanase, a connective tissue activating peptide, a heparinase, a glucoronidase, a heparitinase, a hyluronidase, a sulfatase and a chondroitinase.